

AMENDMENT  
Serial No. 10/524,912  
Docket No. MUR07-GN002

### REMARKS

#### Introductory Comments

Claims 1-8, 16-56, and 64-96 are pending in the present application. Claims 1, 16, 17, 19, 20, 45, 49, 64, 65, 67, and 68 have been amended. Claims 9-15 and 57-63 have been cancelled. Reconsideration of the application is respectfully requested.

#### Instant Office Action – Claim Rejections

Claims 16 and 64 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. Specifically, the Examiner asserts that the limitation, “wherein the frequency of alternating current voltage applied to the circular electrode is of a frequency having a period that is less than the time taken for light to pass over the diameter of the circular electrode,” is not supported in the specification to allow those skilled in the art to make and use the claimed invention. For the reasons that follow, this ground of rejection is respectfully traversed.

It is respectfully submitted that the limitations recited in claims 16 and 64 are fully supported by the specification as filed for those skilled in the art. For example, the limitation in question includes a circular electrode and its corresponding diameter, neither of which are limited to a particular numerical value. In addition, the limitation recites that the frequency of the alternating current voltage applied to the circular electrode has a period less than the time taken for light to pass over the diameter of the electrode. What appears to have led to confusion on the part of the Examiner is how the period of the voltage could depend upon the light passing over the electrode.<sup>1</sup> The answer to this question is rather quite simple: the voltage period depends on the size of the electrode.

It should be noted that the claim does not call out a specific light beam, nor does it specifically call out the size of the electrode. Rather, all that is recited is that the electrode is circular in shape. Those skilled in the art, for any given size of circular electrode, could determine, such as by calculating, the time taken for the light to pass over the electrode. It should be apparent that the time would necessarily change as a function of the diameter of the

<sup>1</sup> Alternatively, what appears to have led to confusion on the part of the Examiner is how the voltage period could be changed as the size of the electrode is changed.

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electrode. In this manner, the limitation simply recites that the period of the voltage is less than the time taken by light to pass over the diameter of the electrode. In other words, those skilled in the art, after determining the time taken for a light beam to travel a particular diameter<sup>2</sup> of a circular electrode, would correspondingly vary the voltage to have a period less than this time. Therefore, the limitation in question as recited in claims 16 and 64 is quite clear and unambiguous. Moreover, it is beyond legitimate dispute that one that those skilled in the art could practice the claimed invention for a given circular electrode.

In the alternative, if it is the Examiner's position that the written description lacks sufficient information as to the light and its passage over the electrode, Applicant points out that the claims themselves provide their own written description. See M.P.E.P. § 2163 (I), citing *In re Koller*, 613 F.2d 819 (C.C.P.A. 1980), for the proposition that original claims constitute their own description. With regard to the rejection to claims 16 and 64, the phrase 'time taken for light to pass over the diameter of the circular electrode', does not refer to any particular light beam actually passing over the electrode, but rather to the time taken for a theoretical light beam to travel a distance which is equal to the diameter of the electrode. Such a time could be easily calculated by a person skilled in the art, as the speed of light is a generally-known constant, and the diameter of the electrode is known. Therefore, Applicant contends that claims 16 and 64 are not unclear and ambiguous, and that the Examiner's rejection should be withdrawn.

Reconsideration and withdrawal of the rejections of record for claims 16 and 64 are respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claims 1-11, 13, 16-22, 24-29, 41-43, 45-59, 61, 64-70, 75-77, 80-87, 89-91, and 93-96 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,683,301 to Waterhouse et al ("Waterhouse"). This ground of rejection has been addressed fully by the amendments made to claims 1 and 49.

Claims 1 and 49 have been each amended to recite, in part, that the array of electrodes is substantially flush. Clearly, Waterhouse does not disclose such a structure. Rather, Waterhouse

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<sup>2</sup> Already knowing the speed of light in terms of distance per time.

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discloses an arrangement of separate wire tip electrodes. In this manner, the wire tip electrodes together provide a topography that is anything but substantially flush. For this reason alone, claims 1 and 49 are distinguishable from Waterhouse, as are the remaining claims that depend therefrom.

Reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejections pertaining to claims 1-11, 13, 16-22, 24-29, 41-43, 45-59, 61, 64-70, 75-77, 80-87, 89-91, and 93-96 are respectfully requested.

**Claim Rejections – 35 U.S.C. § 103**

Claims 12, 14, 15, 23, 30-40, 44, 60, 62, 63, 71-74, 78, 79, 88, and 92 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 6,683,301 to Waterhouse et al ("Waterhouse") in view of U.S. Patent Application Publication No. 2002/0182627 to Wang et al ("Wang"). This ground of rejection has been addressed fully by the amendments made to claims 1 and 49.

As discussed previously, claims 1 and 49 have been amended to recite, in part, that the array of electrodes is substantially flush. Clearly, neither Waterhouse nor Wang disclose such a structure. For this reason alone, claims 1 and 49 are distinguishable from Waterhouse and Wang, as are the remaining claims that depend therefrom.

Reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejections pertaining to claims 12, 14, 15, 23, 30-40, 44, 60, 62, 63, 71-74, 78, 79, 88, and 92 are respectfully requested.

**Conclusion**

In light of the foregoing, it is respectfully submitted that claims 1-8, 16-56, and 64-96, now pending, are patentably distinct from the references cited and are in condition for allowance. Reconsideration and withdrawal of the rejections of record are respectfully requested.

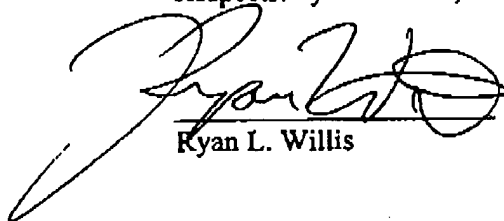
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The Commissioner for Patents is hereby authorized to charge any additional fees that may be required by this paper, or to credit any overpayment to Deposit Account 50-3072. In the event that the Examiner wishes to discuss any aspect of this response, please contact the undersigned at the telephone number indicated below.

Respectfully submitted,



Ryan L. Willis

Taft, Stettinius & Hollister LLP  
Reg. No. 48,787  
425 Walnut Street, Suite 1800  
Cincinnati, OH 45202-3957  
513-357-9663  
[willis@taftlaw.com](mailto:willis@taftlaw.com)